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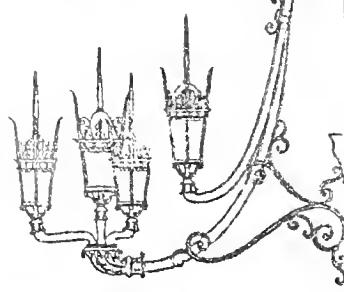
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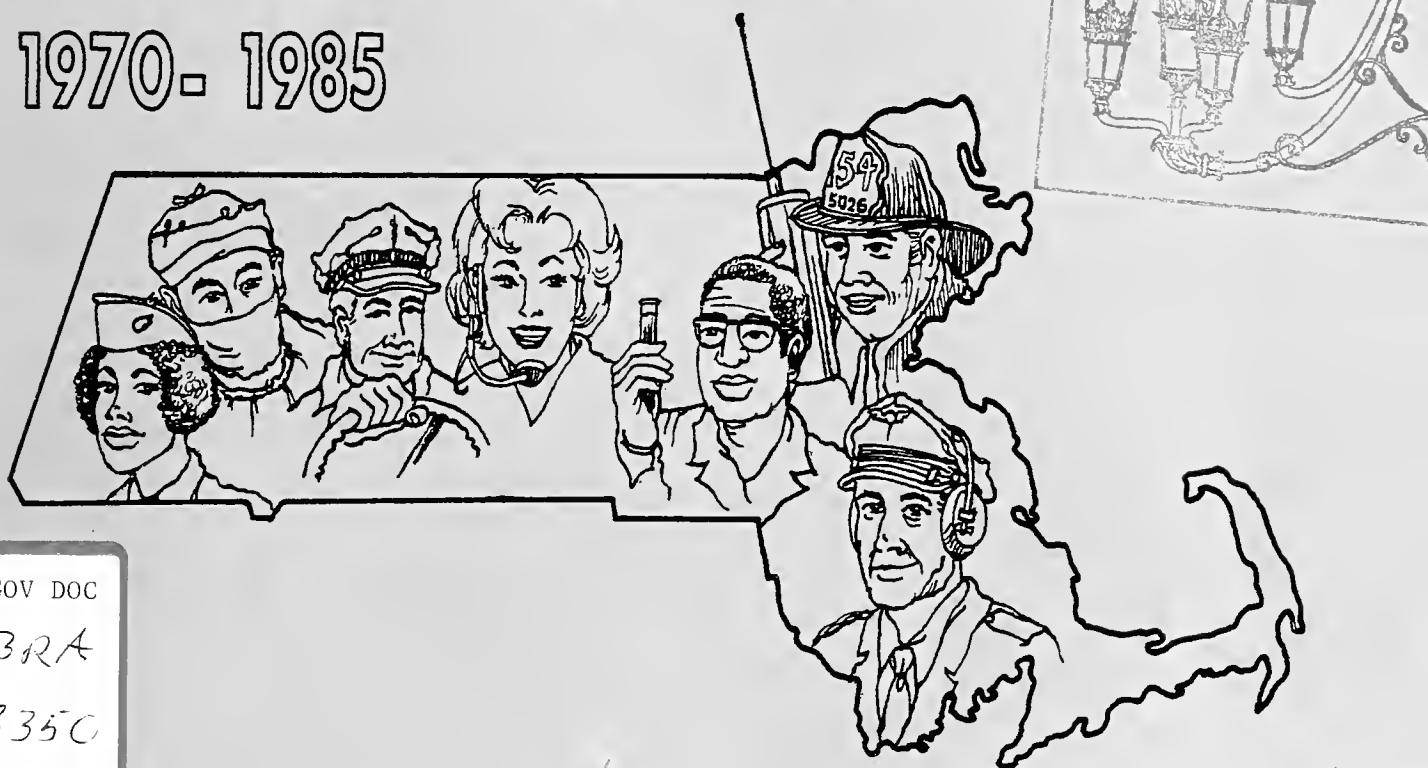
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Employment Requirements for Massachusetts by Occupation, by Industry

1970- 1985



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E M P L O Y M E N T R E Q U I R E M E N T S

F O R

M A S S A C H U S E T T S

by Occupation, by Industry

1970 - 1974 - 1985

Prepared by:

Occupation/Industry Research Department
Research and Information Service
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July 1976

PREFACE

Occupation and industry projections for Massachusetts concerning the period 1970-1974 and 1974-1985 are included in this volume which updates Manpower Requirements for Massachusetts By Occupation, By Industry 1970-1980.

The Massachusetts projections are closely tied to the National projections of the U. S. Department of Labor, Bureau of Labor Statistics, the basic assumptions underlying these projections (see Appendix A) being accepted in the projections for Massachusetts. The forecasts were prepared using a methodology developed by the Bureau of Labor Statistics and exported to the States (see Appendix B).

While the projections take into account special proposed circumstances that will modify the directions of the past (known closings, new developments, etc.), the projections should be viewed essentially as a continuation of past trend (1958-1974) relationships between the nation and the state. It would, therefore, be more accurate to view the specific numbers as indicators of relative magnitude and central tendencies. In other words, the data should be used as indicators of probable direction and relationships rather than as forecasts.

During 1976 companion volumes containing industry and occupational projections for the Boston, Lawrence-Haverhill, Brockton, and Fitchburg-Leominster Standard Metropolitan Statistical Areas along with the Springfield-Chicopee-Holyoke, Worcester, Fall River, New Bedford, Lowell and Pittsfield Labor Market Areas will be prepared and published.

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INTRODUCTION

There has long been a recognized need for forecasts of industry and occupational employment information. Such legislation as the Employment Act of 1946, the Vocational Education Act, as amended, and the Comprehensive Employment and Training Act of 1973 emphasized the importance of information on future labor demand. Employment forecasts are a critical prerequisite to any type of educational plans as the production of trained personnel capable of finding meaningful employment is one of the primary goals of a nation's educational and training system.

Classical economic theory maintained that markets efficiently allocated resources by finding the appropriate price or wage at which supply will equal demand. According to the classical economists the lowering or raising of wages in an occupation will raise or lower the supply and demand for labor until an equilibrium point is attained. However, Keynesian economists do not agree that falling wages would bring full employment and social factors in the United States make it infeasible to attempt a policy of lowering wages. Therefore, additional mechanisms are necessary to facilitate the timely allocation of workers to available job opportunities i.e., the matching of labor demand with labor supply.

The projections of employment requirements for Massachusetts, designed to provide current occupational profile and projected occupational requirements information, should be helpful to educational and training planners for use in planning training facilities and the development of vocational education curricula. The data will also be useful to Area Planning Councils, the Work Incentive Program, Employment Service operations, guidance counselors and others concerned with labor demand.

This report is an approximation of industrial and occupational needs for 1970-1985 for 201 industries and 421 detailed occupations based on industry employment records 1958-1974 and occupational patterns reported in the 1970 Decennial Census and national occupational change factors.

The occupational demand detailed in the attached tables is based on anticipated changes in industrial employment and replacement demand likely to arise due to deaths, retirements and other separations from the labor force. For methodology employed to develop the projections see Appendix B, Methodology, Page 9.

Attached is Table 1 showing total employment, by industry adjusted for class of worker for the years 1970, 1974 and 1985, and the amount of change 1970-1974, 1974-1985. Table 2 and Table 3 detail the average annual number of job openings by occupation during the periods 1970-1974 and 1974-1985 respectively.

The economic assumptions underlying the industry projections are shown in Appendix A, Page 8.

INDUSTRY EMPLOYMENT TRENDS

In 1974 there were about 2,433,800 jobs in Massachusetts. By 1985 an estimated 189,900 new jobs will have been created bringing the estimated total employment to 2,623,700 - an annual growth rate of 0.7 percent. The estimated annual growth rate is slightly lower than the 0.8 percent rate shown for the 1970-1974 period. (see Table A). Most of the new jobs will require some special vocational training; many will require high levels of education. But there will also be jobs available, at least on an entry level, for those with minimal preparation.

TABLE A

INDUSTRY SECTOR	EMPLOYMENT			NET CHANGE 1970-1974		NET CHANGE 1974-1985	
	1970	1974	1985	Amount	Percent	Amount	Percent
Total-All Industries	2,355,785	2,433,841	2,623,706	78,056	3.3	189,865	7.8
Agriculture, Forestry, Fisheries	23,229	23,075	21,780	-154	-0.7	-1,295	-5.6
Mining	1,003	983	1,106	-20	-2.0	123	12.5
Construction	133,003	134,097	152,204	1,094	0.8	18,107	13.5
Manufacturing	656,151	629,209	612,113	-26,942	-4.1	-17,096	-2.7
Durable Goods	367,106	372,811	385,287	5,705	1.6	12,476	3.3
Nondurable Goods	289,045	256,398	226,826	-32,647	-11.3	-29,572	-11.5
Transportation, Communications, & Public Utilities	131,040	137,716	143,219	6,676	5.1	5,503	4.0
Wholesale & Retail Trade	516,363	548,662	606,254	32,299	6.3	57,592	10.5
Finance, Insurance, Real Estate	133,806	144,324	159,915	10,518	7.9	15,591	10.8
Services	642,318	696,023	800,378	53,705	8.4	104,355	15.0
Medical	190,452	215,993	263,670	25,541	13.4	47,677	22.1
Educational	173,240	191,493	235,486	18,253	10.5	43,993	23.0
Public Administration	118,872	119,752	126,737	880	0.7	6,985	5.8

Both Massachusetts and the rest of the nation have experienced a shift from a goods producing economy to a service producing economy. This trend is expected to continue into the mid-1980's. Nationally, employment in the service producing sector is projected to increase by over 30 percent while a modest 6 percent growth rate is forecasted for the goods producing industries. The Massachusetts economy is expected to show similar trends with the number of jobs in service industries registering a 12 percent gain as opposed to a slight decline in the goods producing sector. (see Table B). The major reasons underlying the shift are (1) population growth, (2) rising income and living standards accompanied by a demand for improved services and (3) increases in productivity and worker skills permitting large increases in output without corresponding increases in employment.

INDUSTRY EMPLOYMENT TRENDS (Continued)

TABLE B

INDUSTRY SECTOR	EMPLOYMENT		NET CHANGE 1974-1985	
	1974	1985	Amount	Percent
Goods Producing	787,364	787,203	-161	-
Agriculture	23,075	21,780	-1,295	-5.6
Mining	983	1,106	123	12.5
Contract Construction	134,097	152,204	18,107	13.5
Manufacturing Industries	629,209	612,113	-17,096	-2.7
Service Producing	1,646,477	1,836,503	190,026	11.5
Transportation, Communications, & Public Utilities	137,716	143,219	5,503	4.0
Wholesale & Retail Trade	548,662	606,254	57,592	10.5
Finance, Insurance, Real Estate	144,324	159,915	15,591	10.8
Services	696,023	800,378	104,355	15.0
Public Administration	119,752	126,737	6,985	5.8

As detailed in Table A supra, the largest gain due to industry growth will be in the service industries where the gain was also much greater in the 1970-1974 period than overall employment growth. Most of the expansion will come from the medical and educational sectors which are labor-intensive and little affected by labor-displacing technological advances. Business services, including accounting, data processing and maintenance also are expected to grow rapidly.

The Manufacturing division is projected to display the largest decrease. Productivity gains permitting increases in output without corresponding increases in employment together with the continuation of a long term decline in some major industries will contribute heavily to the overall employment abatement. Corresponding to the expected reduction in employment will be a diminishing of the relative share of the manufacturing sector to total employment. In 1970 factory employment accounted for about 28 percent of total employment. In 1974 this percentage dipped to 26 percent and by 1985 is expected to comprise only 23 percent of total employment.

Within the factory division the changes in employment pattern will vary. While the number of jobs in the durable goods sector is forecasted to advance, employment in the nondurable goods sector, weighted down by some traditional declining industries, is projected to suffer large losses, more than offsetting the gain in durable goods.

Although employment in the hard goods sector was strongly affected by the recent recession, this sector has shown signs of rebounding and should continue to improve into the mid-1980's. In relation to total manufacturing employment, the relative share of this sector will increase from 59 percent in 1974 to 63 percent in 1985. This shift should present ramifications for proponents of the dual labor market theory.



While the hard goods sector will register a positive growth rate, its counterpart - the nondurable sector - will not fare as well. Burdened by a structural decline in some traditional industries, this sector will not share in the overall growth of the Massachusetts economy. Over the 1970-1974 period employment in the soft goods sector declined at an annual rate of 2.8 percent. While a slower rate of decline should be experienced during the 1974-1985 period, employment in this sector will be far below the 1974 level.

Employment in the contract construction industry division rose only slightly during the 1970-1974 period. Such factors as high interest rates, tight money, disintermediation and high costs of labor and material curtailed the growth rate in this division. While over the 1974-1985 period employment in this division should expand at a faster rate, the increase will be significantly less than the growth rate registered in the decade of the 1960's.

The number of jobs in the transportation, communication and public utilities division is expected to rise over the 1974-1985 period at a slower than average rate. The relative share of this division will abate slightly - from 5.7 to 5.5 in 1985. Widely differing employment patterns will continue to be experienced among individual industries within the division. A moderate increase is projected in the trucking and utilities industries while a decline is expected to continue in railroad employment. Reflecting a reduction in population growth and the introduction of laborsaving innovations, employment in the telephone industry will show little change.

Job growth in finance, insurance and real estate expanded at a rapid pace over the 1960-1974 period increasing by some 40 percent. During the 1974-1985 period employment in this division is expected to continue to rise but at a more moderate rate. Laborsaving techniques, a reduction in population growth and a diminished housing market will slow the growth pace of this division.

Expansion in the wholesale and retail trade division is projected to rise at a faster than average rate over the 1974-1985 period. However, the 1.0 percent annual growth rate over this period will be slightly less than the 1.6 percent rate registered during the 1970-1974 period. Within this division retail trade industries are expected to increase at a faster pace than wholesale trade. The increase in laborsaving devices such as automated warehousing equipment, self-service gasoline stations and a greater use of electronic data processing equipment will temper growth rates in this division.

Employment in Public Administration is expected to increase into the mid-1980's. This division includes only government workers involved in activities unique to government. Government workers in agencies engaged in activities also carried on by private industry, such as construction, are classified in the appropriate industrial category. The growth rates experienced by this division in the past will be slowed somewhat by cutbacks in the number of federal government jobs coupled with a diminished hiring rate in state and local government agencies.

INDUSTRY EMPLOYMENT TRENDS (Continued)

Employment in the Agriculture, Forestry and Fishery division, reflecting productivity gains, is expected to decline both absolutely and in its relative share of total employment. Employment in the Mining division, after showing a slight drop between 1970 and 1974, is expected to inch up in the 11 year period from 1974.

While the regression model used in making the industry projections takes into consideration normal fluctuations within an industry, the model does not account for recent or possible exogenous shocks to the system. For example, another energy crisis would adversely effect the employment forecasts, especially in those industries heavily dependent on petroleum and petroleum products (See Appendix C). In addition, some other aberrations which could possibly affect the projections are (1) the closing or partial closing of Fort Devens, (2) passage of a National Health Plan, (3) revitalizations of the Boston-Washington corridor and (4) the recently passed 200 mile fishing limit bill. Of course, the model also assumes that other than the normal business cycles the economy will not experience a widespread or long-lasting recession.

OCCUPATIONAL REQUIREMENTS

The total demand by occupation during the 1974-1985 span of years is the sum of the demand arising from industry growth and that needed for replacement of workers who leave the labor force because of death, retirement or other separations from the labor force. The eleven-year growth component will amount to approximately 200,000 while more than five times this number will be needed as replacements. 1/ On the average, therefore, approximately 120,900 additional workers will be required each year during the eleven-year span.

TABLE C

ALL OCCUPATIONS	EMPLOYMENT			1970 - 1974			1974 - 1985		
	1970	1974	1985	Total Demand	Due to Growth	Due to Sep.	Total Demand	Due to Growth	Due to Sep.
TOTAL, ALL OCCUPATIONS <u>2/</u>	2,355,685	2,436,468	2,635,143	123,047	20,213	102,842	120,885	18,043	102,842
Professional, Technical, Kindred	368,103	401,568	454,129	23,980	8,379	15,601	20,370	4,769	15,601
Managers	230,838	259,447	279,684	15,462	7,153	8,309	10,150	1,841	8,309
Sales Workers	152,425	155,558	170,037	7,524	783	6,741	8,056	1,315	6,741
Clerical Workers	456,598	471,445	537,530	33,564	3,716	29,848	35,852	6,004	29,848
Crafts & Kindred Workers	306,841	308,484	332,755	7,360	411	6,951	9,158	2,207	6,951
Operatives	412,305	398,125	381,284	10,456	-3,545	14,005	12,470	-1,535	14,005
Service Workers	314,189	330,591	368,388	22,830	4,100	18,728	22,165	3,437	18,728
Laborers, except Farm	102,225	100,504	105,462	1,877	-430	2,310	2,757	447	2,310
Farmers & Farm Workers	12,161	10,746	5,874	-6	-354	349	-93	-442	349

Note: May not add to totals due to rounding.

Growth in the professional, technical and kindred division will be substantial over the 1974-1985 period. Demand will be particularly strong for medical and health workers, computer specialists, accountants, and electrical and industrial technicians. Growth in the engineering occupations is expected to continue to rebound from the downturn of the 1970-1971 period. Although a demand for teachers will increase over the 1974-1985 period, it will be outpaced by the number of qualified applicants. However, a recent national survey found that the teacher supply was least adequate in mathematics, natural and physical sciences, industrial arts, special education and some vocational-technical subjects.

Corresponding to national trends, the clerical division is expected to be the fastest growing group in the 1974-1985 span of years. Increased paper work will accompany the expansion of large and complex organizations while routine clerical work may be reduced through increased use of computers or other business machines. Many clerical workers especially secretaries, receptionists and others dealing with the public will not be affected by automation.

A rising demand for hospital and other medical care and the more frequent use of restaurants, beauty salons and other services will generate an increase need for service workers as income levels rise. Within this division, occupations in health, food and cleaning service activities are projected to grow the most rapidly. In addition, a sizeable replacement demand will boost the need for workers in these fields.

1/ Because of a lack of current data, the age-specific separation rates for women are based solely upon the 1960 demographic distributions. To the extent the 1960 separation rates overestimate actual separation rates, then the replacement forecasts will be too high.

2/ Total all occupations does not equal total all industries because of different sources of data.

OCCUPATIONAL REQUIREMENTS (Continued)

The managerial and sales categories are expected to experience a moderate demand for workers during the 1974-1985 period. A growing demand for management specialists and an increase in demand for goods and services will foster a need for additional workers in the managerial and sales categories. However, the call for additional workers will be overshadowed by the necessity of satisfying replacement needs.

Craft workers numbering about 308,500 in 1974 are expected to show moderate gains over the next eleven years. Occupations which are expected to contribute heavily to the growth factor in this division are carpenters, electricians, plumbers, and pipefitters, air conditioning mechanics and automobile mechanics. However, technological improvements and less than normal construction activity will temper growth in the craft fields.

Among the remaining divisions, laborers are projected to experience a slight gain while operatives and farmers and farm workers should show a contraction in employment. A dampening of demand for semi-skilled and other operatives in textile and other factory activities will significantly reduce the need for such workers. With the exception of farmers and farm workers, the overall net demand in these divisions will be positive as replacement needs will more than offset the anticipated decline.

Among the broad occupational group the white-collar and service workers have grown the most rapidly. This trend is expected to continue in the future with a faster-than-average growth of white-collar and service workers, a slower-than-average growth of blue-collar jobs and a further decline of farm workers.

TABLE D

ALL OCCUPATIONS	EMPLOYMENT			1970 - 1974			1974 - 1985		
	1970	1974	1985	Total Demand	Due to Growth	Due to Sep.	Total Demand	Due to Growth	Due to Sep.
TOTAL, ALL OCCUPATIONS	2,355,685	2,436,468	2,635,143	123,047	20,213	102,842	120,885	18,043	102,842
White Collar	1,207,964	1,288,018	1,441,380	80,530	20,031	60,499	74,428	13,929	60,499
Blue Collar	821,371	807,113	819,501	19,693	-3,564	23,266	24,385	1,119	23,266
Service Workers	314,189	330,591	368,388	22,830	4,100	18,728	22,165	3,437	18,728
Farmers & Farm Workers	12,161	10,746	5,874	-6	-354	349	-93	-442	349

As mentioned earlier the information furnished in this report should be used as indicators of trend, relative magnitude and probable direction rather than as specific forecasts of actual employment levels. The information should also be used in conjunction with other data prepared by this agency and other private and public organizations. For example, data on unfilled job openings can be used to modify the projections so as to provide an indicator of short-run trend.

Difficulty may arise in using the information contained in this report because of the various coding structures. Nevertheless, a match of the different coding systems may be obtained by referring to Matching Occupational Classifications to Vocational Education Program Codes published by the U. S. Department of Labor, Bureau of Labor Statistics. While not a complete match, this publication provides a usable cross-reference guide.

For estimates of annual demand, by occupation, due to both growth and replacement needs see Table 2, page 19 and Table 3, page 28.

APPENDIX A

ASSUMPTIONS

A number of general assumptions are implicated in the projections which were made within the framework of the national economic assumptions developed by the U. S. Department of Labor, Bureau of Labor Statistics.

Underlying these projections are the following assumptions:

1. The institutional framework of the U. S. economy will not change radically.
2. Current, social, technological and scientific trends will continue, including values placed on work, education, income and leisure.
3. No major event such as widespread or long-lasting energy shortages or war will significantly alter the industrial structure of the economy or alter the rate of economic growth.
4. The economy will gradually recover from the high unemployment levels of the mid-1970's.

METHODOLOGYIndustry Projections

In order to calculate occupational projections it was necessary to project employment for 201 detailed industry groups. A historical series of annual average employment for the seventeen year period 1958-1974 for nonfarm wage and salary sectors was first compiled. Historical data for the nonfarm sector was available from Employment and Wage Reports (ES 202) of the Massachusetts Division of Employment Security and the Current Employment Statistics Program (CES 790). The 1970 Decennial Census and employment estimates furnished by the Bureau of Labor Statistics were used as a data source where industry data were weak or unavailable from the above two sources. In situations where the Decennial Census was used as a data source, a Census/ES 202 or Census/CES 790 ratio was employed in making the projections to 1985.

Initial preparation of the input involved selection of the variables and the appropriate time frame. The variables chosen were state employment regressed against national employment and time for the years 1958 through 1974.

A linear least-square regression model, as developed by the Bureau of Labor Statistics, was employed in making the projections. The method initially assumes a straight-line trend over time. The equation of the regression line is expressed mathematically as $Y_c = a + b_1 x_1 + b_2 x_2 + e$ where:

Y_c = State employment (computed)

a = Constant

b = Slope of the line

x_1 = Time

x_2 = National employment

e = Error term

Industry employment estimates for 1985 were then computed, tested for statistical significance and analyzed for reasonableness.

After preparing wage and salary estimates for 1974 and 1985, it was necessary to make industry employment estimates consistent with the



Bureau of Labor Statistics total employment concept. Utilizing national factors wage and salary employment by industry was adjusted to a one-person, one-job concept by accounting for persons employed but not at work (unpaid absences) and by deducting the secondary job of multiple job holders. The employment components for each industry were then summed to obtain total adjusted wage and salary employment by industry for 1974 and 1985.

Additional refinements to the adjusted wage and salary employment estimates were made. These refinements involved augmenting the employment estimates to include self-employed, unpaid family workers and government workers. Government workers involved in activities unique to government are classified in the public administration industry. Government workers in agencies engaged in activities also carried on by private industry, such as construction, education and medical services, are classified in the appropriate industrial category.

Estimates of self-employed and unpaid family workers by industry were made using the Decennial Census data for Massachusetts and applying national adjustment factors from the Current Population Survey. National change factors were employed to project the estimates by industry to 1985. To provide a control total for each of the government classes of workers, estimates for each government class of workers were made from the CES 790 survey. Estimates of industry employment within the three government classes of worker were made from a combination of Civil Service Commission data, the Decennial Census, and data from the survey Public Employment in 1970. Projections of the government classes of worker were made using the same method as for private wage and salary workers. Distributions by industry of the government totals was made using the ratio between total government classes of worker estimates for 1985 and 1974.

Occupational Projections

After the industry employment estimates on a total employment concept had been developed for 1970, 1974 and 1985, projected occupational employment requirements were then derived. The technique involved applying the state industry/occupation matrix to the industry estimates for 1970, 1974 and 1985. ^{1/} The base period matrix for Massachusetts was prepared by adjusting decennial census data to a control total. The matrices for 1974 and 1985 were computed by applying national change factors to the base year matrix. The occupational estimates for 1970, 1974 and 1985 were then computed by applying the matrix to the industry estimates for each year and summing across industries.

^{1/} A Method B approach as outlined in Tomorrow's Manpower Needs, Volume I, U. S. Department of Labor, Bureau of Labor Statistics, (1969).

Replacement Needs

The growth in employment requirements for each occupation is but a first step in estimating the overall occupational requirements. To growth estimates must be added replacement needs expected as a result of deaths, retirements and other separations from the labor force. Separation rates for each occupation for Massachusetts were developed by the Bureau of Labor Statistics based on the Decennial Census, national working life-tables, expected changes in mortality rates and projected labor force participation rates. Applying the separation rates to the employment estimates produced annual replacement needs to 1985. Adding the replacement needs to the demand due to growth gives total demand for the 421 detailed occupational categories.

APPENDIX C

TABLE E

Employment, For Selected Industries Possibly Affected By The Energy Crisis, November 1973 and March 1974 ^{2/}

SIC	INDUSTRY	NOVEMBER 1973	MARCH 1974	AMOUNT CHANGE	PERCENT CHANGE
<u>DIRECT EFFECT</u>					
15	General Building Contractors	39,384	30,481	-8,903	-22.6
16	Heavy Construction Contractors	14,630	9,188	-5,442	-37.2
17	Special Trade Contractors	58,361	49,026	-9,335	-16.0
243	Millwood, Plywood	1,574	1,093	- 481	-30.6
249	Miscellaneous Wood Products	2,992	2,578	- 414	-13.8
333,4	Nonferrous Metals	873	810	- 63	- 7.2
335	Nonferrous Rolling & Drawing	5,493	4,781	- 712	-13.0
281	Industrial Chemicals	1,558	1,520	- 38	- 2.4
282	Plastics Materials & Synthetic Resins	7,087	7,064	- 23	- 0.3
284	Soaps and Cosmetics	3,879	3,545	- 334	- 8.6
29	Petroleum & Coal Products	1,030	957	- 73	- 7.1
307	Miscellaneous Plastic Products	20,618	20,418	- 200	- 1.0
421	Trucking	28,000	25,825	-2,175	- 7.8
44	Water Transportation	2,556	2,360	- 196	- 7.7
45	Air Transportation	8,242	7,524	- 718	- 8.7
49	Electric, Gas & Sanitary Services	19,789	19,345	- 444	- 2.2
554	Gasoline Service Stations	15,103	13,078	-2,025	-13.4
721	Laundries & Dry Cleaning	10,669	10,392	- 277	- 2.6
<u>NEGATIVE INDIRECT EFFECT</u>					
346	Metal Stampings	4,541	3,939	- 602	-13.3
371	Motor Vehicles & Equipment	6,387	2,815	-3,572	-55.9
372	Aircraft & Parts	8,031	7,926	- 105	- 1.3
373	Ship & Boat Building	4,730	4,594	- 136	- 2.9
239	Miscellaneous Textile Products	8,834	8,541	- 293	- 3.3
301	Tires & Inner Tubes	3,131	2,995	- 136	- 4.3
501	Motor Vehicles, Wholesale	8,086	7,832	- 254	- 3.1
502	Drugs, Chemicals, Wholesale	7,465	7,247	- 218	- 2.9
551,2	Motor Vehicle Dealers, Retail	21,677	20,118	-1,559	- 7.2

The above table shows changes in employment between November 1973 and March 1974 for selected industries which were possibly affected by the energy crisis. However, the data are not seasonally adjusted and some of the changes could be attributed to seasonal fluctuations or other non-energy related factors. In the above table the term direct effects refers to the inability of an establishment to obtain sufficient

APPENDIX C (Continued)

fuel or electrical energy to provide power for its operation or sufficient petroleum-based products for its own use or sale. Industries suffering negative indirect effects are defined as those which reduced their output of goods and services owing to reduced demand arising from their potential customers' actual or anticipated inability to obtain sufficient supplies of petroleum products.

2/ See John F. Early, "Effect of the Energy Crisis On Employment" for a further discussion.

TABLE I

TOTAL EMPLOYMENT BY INDUSTRY ADJUSTED FOR CLASS OF WORKER
1970 - 1974 - 1985
MASSACHUSETTS

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970 - 1974	1974 - 1985
TOTAL, ALL INDUSTRIES	2,355,785	2,433,841	2,623,706	78,056	189,865
AGRICULTURE, FORESTRY, & FISHERIES	23,229	23,075	21,780	-154	-1,295
Agriculture	19,717	19,812	18,807	95	-1,005
Agriculture Production	12,726	11,578	8,387	-1,148	-3,191
Agriculture Services, Except Horticultural	2,243	2,372	3,654	629	782
Horticultural Services	4,748	5,362	6,766	614	1,404
Forestry	448	519	853	71	334
Fisherries	3,064	2,744	2,120	-320	-624
MINING	1,003	983	1,106	-20	123
Metal Mining	0	3	10	3	7
Coal Mining	0	0	0	0	0
Crude Petroleum & Natural Gas Extraction	26	192	395	166	203
Nonmetallic Mining, & Quarrying, except Fuel	977	788	701	189	-87
CONSTRUCTION	133,003	134,097	152,204	1,094	18,107
General Building Contractors	38,325	35,388	44,206	-2,937	8,318
General Contractors, Except Building	29,246	29,449	31,731	203	2,282
Special Trade Contractors	65,432	69,260	76,267	3,828	7,007
MANUFACTURING	656,151	629,209	612,113	-26,942	-17,096
Durable Goods	367,106	372,811	385,287	5,705	12,476
Ordnance	17,303	20,006	20,830	2,703	824
Lumber & Wood Products, Except Furniture	4,911	4,749	4,385	-162	-364
Logging	189	152	129	-37	-23
Sawmills, Planing Mills, & Mill Work	1,908	1,613	1,340	-295	-273
Miscellaneous Wood Products	2,814	2,984	2,916	170	-68
Furniture & Fixtures	10,301	10,247	9,314	-54	-933
Stone, Clay & Glass Products	11,898	13,312	14,424	1,414	1,112
Glass & Glass Products	460	962	1,237	502	275
Cement, Concrete, Gypsum, & Plaster Products	2,349	3,169	3,481	320	312
Structural Clay Products	203	146	158	-57	12
Pottery & Related Products	200	298	318	98	20
Miscellaneous Nonmetallic Mineral & Stone Products	8,186	8,737	9,230	551	493
Primary Metal Production	19,086	17,817	17,076	-1,269	-741
Blast Furnaces, Steel Works, Rolling & Fin. Mills	1,552	1,301	966	-251	-335
Other Primary Iron & Steel Industries	8,140	8,719	8,358	579	-381
Primary Aluminum Industries	1,840	1,388	1,178	-452	-210
Other Primary Nonferrous Industries	7,554	6,409	6,594	-1,145	185
Fabricated Metal Products	41,012	47,105	47,010	6,093	-95
Cutlery, Hand Tools, & Other Hardware	11,816	14,413	14,839	2,597	426
Fabricated Structural Metal Products	7,976	8,776	8,590	800	-186
Screw Machine Products	4,670	4,735	4,441	65	-294
Metal Stamping	3,565	3,738	3,752	173	14
Misc. Fabricated Metal Products	12,985	15,443	15,388	2,458	-55
Machinery, Except Electrical	73,711	80,238	84,538	6,527	4,300
Engines & Turbines	6,443	7,160	7,448	717	288
Farm Machinery & Equipment	116	127	97	11	-30
Construction & Material Handling Machines	1,563	1,016	779	-547	237
Metalworking Machinery	15,614	15,990	15,014	376	-976
Office & Accounting Machines	1,605	2,580	2,853	975	273
Electronic Computing Equipment	12,666	19,078	26,592	6,412	7,514
Machinery, Except Electrical, N.E.C.	35,704	34,287	31,755	-1,417	-2,532

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970 - 1974	1974 - 1985
Electrical Machinery, Equipment & Supplies	94,082	94,006	94,940	-76	934
Household Appliances	1,262	1,552	1,365	290	-187
Radio, TV, & Communication Equipment	29,154	28,194	29,000	-960	806
Electrical Machinery, Equip. & Supplies, N.E.C.	63,566	64,260	64,575	594	315
Transportation Equipment	32,368	17,948	22,847	-14,420	4,899
Motor Vehicles & Motor Vehicle Equipment	5,919	4,016	5,950	-1,903	1,934
Aircraft & Parts	9,301	8,092	8,094	-1,209	2
Ship & Boat Building & Repairing	16,356	4,805	7,260	-11,551	2,455
Railroad Locomotives & Equipment	0	0	0	0	0
Mobile Dwellings & Campers	13	37	96	24	59
Cycles & Misc. Transportation Equipment	779	998	1,447	219	449
Prof., Scientific Instr., Photo. Equip. & Watches	34,910	40,528	43,676	5,618	3,148
Scientific & Controlling Instruments	13,271	12,085	13,425	-1,186	1,340
Optical & Health Services Supplies	9,376	13,847	15,875	4,471	2,028
Photographic Equipment & Supplies	9,748	12,365	12,533	2,617	168
Watches, Clocks, & Clockwork Operated Devices	2,515	2,231	1,843	-284	-388
Miscellaneous Manufacturing Industries	27,524	26,855	26,247	-669	-608
INDURABLE GOODS					
Food & Kindred Products	289,045	256,398	226,826	-32,647	-29,572
Meat Products	37,058	30,646	23,348	-6,412	-7,298
Dairy Products	4,194	3,489	3,273	-705	-216
Canning & Preserving	7,233	5,308	3,148	-1,925	-2,160
Grain Mill Products	4,126	3,991	4,015	-135	24
Bakery Products	686	739	730	53	-9
Confectionary & Related Products	7,916	6,801	4,652	-1,115	-2,149
Beverage Industries	4,806	3,167	1,354	-1,639	-1,813
Misc. Food Preparation & Kindred Products	4,504	3,900	2,988	-604	-912
Tobacco Manufacturing	3,593	3,251	3,188	-342	-63
Textile Mill Products	161	106	102	-55	-4
Knitting Mills	31,984	28,585	25,104	-3,399	-3,481
Dyeing & Finishing Textiles, Exc. Wool & Knit Goods	5,217	5,830	6,380	613	550
Floor Coverings, Except Hard Surfaces	6,358	6,213	6,951	-145	758
Yarn, Thread, & Fabric Mills	1,206	212	194	-994	-18
Misc. Textile Mill Products	12,343	9,990	5,958	-2,353	-4,032
Apparel & Other Fabricated Textile Products	6,860	6,340	5,621	-520	-719
Apparel & Accessories	50,186	43,899	34,687	-6,287	-9,212
Misc. Fabricated Textile Products	41,210	35,740	26,983	-5,470	-8,757
Paper & Allied Products	8,976	8,159	7,704	-817	-455
Pulp, Paper, & Paperboard Mills	35,083	31,898	28,596	-3,185	-3,302
Paperboard Containers & Boxes	11,121	9,047	6,284	-2,074	-2,763
Misc. Paper & Pulp Products	10,150	9,115	8,528	-1,035	-587
Printing, Publishing, & Allied Products	13,812	13,736	13,784	-76	48
Newspaper Publishing & Printing	44,955	43,814	45,907	-1,141	2,093
Printing, Publishing, & Allied Prod., Exc. Newspapers	14,980	14,438	14,278	-542	-160
Chemicals & Allied Products	29,975	29,376	31,629	-599	2,253
Industrial Chemicals	18,997	18,549	18,543	-448	-6
Plastics, Synthetics & Resins, Except Fibers	2,059	1,514	1,060	-545	-454
Synthetic Fibers	6,779	6,621	6,673	-153	52
Drugs & Medicines	33	425	432	392	7
Soaps & Cosmetics	1,353	1,535	2,042	182	507
Paints, Varnishes, & Related Products	4,405	3,543	3,300	-862	-243
Agricultural Chemicals	1,308	1,353	1,247	45	-106
Miscellaneous Chemicals	107	381	480	274	99
Petroleum & Coal Products	2,953	3,177	3,309	224	132
Petroleum Refining	767	1,106	1,159	339	33
Misc. Petroleum & Coal Products	9	21	48	12	27
Rubber & Misc. Plastic Products	758	1,085	1,091	327	6
Rubber Products	33,322	33,991	33,129	669	-862
Misc. Plastic Products	16,183	14,500	11,429	-1,683	-3,071
	17,139	19,491	21,700	2,352	2,209

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970 - 1974	1974 - 1985
Leather & Leather Products	36,532	23,804	16,271	-12,728	-7,533
Tanned, Curried, & Finished Leather	4,560	3,191	1,456	-1,369	-1,735
Footwear, Except Rubber	28,850	17,598	12,511	-11,252	-5,087
Leather Products, Except Footwear	3,122	3,015	2,304	-107	-711
TRANSPORTATION, COMMUNICATIONS & OTHER PUBLIC UTIL.	131,040	137,716	143,219	6,676	5,503
Transportation, Total	69,341	70,045	74,056	704	4,011
Railroads, & Railway Express Services	7,181	5,358	4,232	-1,823	-1,126
Local, Interurban Transit	17,981	20,968	21,845	2,987	877
Street Railways, Bus Line	13,345	15,676	16,670	2,331	994
Taxicab Service	4,636	5,292	5,175	656	-117
Trucking & Warehousing	30,246	29,242	32,460	-1,004	3,218
Trucking Service	28,110	27,095	30,065	-1,015	2,970
Warehousing & Storage	2,136	2,147	2,395	11	248
Water Transportation	3,191	2,815	2,697	-376	-118
Air Transportation	7,352	7,744	8,120	392	376
Pipelines	42	9	9	-33	0
Transportation Services	3,548	3,909	4,693	561	784
Communications, Utilities, & Sanitary Services	61,699	67,671	69,163	5,972	1,492
Communications	34,603	40,103	40,081	5,500	-22
Telephone (Wire & Radio)	31,322	36,106	35,310	4,784	-796
Telegraph (Misc. Communications Service)	829	877	849	48	-28
Radio Broadcasting, TV	2,452	3,120	3,922	668	802
Utilities & Sanitary Services	27,096	27,568	29,082	472	1,514
Electric Light & Power	13,375	13,428	14,202	53	774
Electric-Gas Utilities	1,102	530	602	-572	72
Gas & Steam Supply Systems	5,334	5,143	5,055	-191	-38
Water Supply	2,645	2,810	3,058	165	248
Sanitary Services	4,609	5,624	6,126	1,015	502
Other Utilities, N.E.C.	31	33	39	2	6
WHOLESALE TRADE	119,628	123,283	133,587	3,655	10,304
Wholesale, Except Misc. Wholesale	81,936	84,003	92,729	2,067	8,726
Motor Vehicles & Equipment	7,142	8,257	8,217	1,115	-40
Drugs, Chemicals, & Allied Products	7,397	7,169	7,176	-228	7
Dry Goods & Apparel	8,512	9,709	10,636	1,197	927
Food & Related Products	18,879	18,257	18,530	-622	273
Farm Products - Raw Materials	706	556	546	-150	-10
Electrical Goods	12,030	11,690	13,167	-340	1,477
Hardware, Plumbing	5,378	6,040	6,180	662	140
Machinery Equipment Supplies	21,892	22,325	28,277	433	5,952
Miscellaneous Wholesale Trade	37,692	39,280	40,858	1,588	1,578
Metals & Minerals, N.E.C.	4,013	4,159	4,297	146	138
Petroleum Products	4,169	4,368	4,545	199	177
Scrap & Waste Material	2,940	3,121	3,280	181	159
Alcoholic Beverages	3,244	3,388	3,540	144	152
Paper & Paper Products	4,867	5,053	5,258	186	205
Lumber & Construction Materials	4,045	4,208	4,386	163	178
Wholesale, N.E.C.	14,414	14,983	15,552	569	569
RETAIL TRADE	396,735	425,579	472,667	28,644	47,288
Building Materials	16,774	16,954	18,509	180	1,555
Lumber, Building Material	11,852	12,238	12,503	386	265
Hardware & Farm Equipment	4,922	4,716	6,006	-206	1,290
General Merchandise, Total	77,633	74,166	79,951	3,467	5,785
Department, Mail Order	55,420	51,255	53,526	-4,165	2,271
Limited Price Stores	9,261	9,186	8,918	-75	-268
Vending Machine Operators	1,811	1,700	2,395	-111	695
Direct Selling	5,536	5,756	8,397	220	2,641
Misc. Merchandise Stores	5,605	6,269	6,715	664	446

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970 - 1974	1974 - 1985
Food & Dairy Stores	70,566	75,552	84,481	4,936	8,929
Grocery Stores	55,298	62,653	71,327	7,355	8,574
Dairy Product Stores	3,089	2,503	2,791	-586	288
Retail Bakeries	4,891	4,532	3,960	-359	-572
Food Stores, N.E.C.	7,288	5,864	6,403	-1,424	539
Auto Dealers, Gas Stations	42,811	43,743	48,677	932	4,934
Motor Vehicle Dealers	19,237	20,732	23,475	1,495	2,743
Tire, Battery, Accessory	2,807	3,400	3,829	593	429
Gasoline Service Stations	19,590	17,814	19,186	-1,776	1,372
Miscellaneous Vehicle Dealers	1,177	1,797	2,137	520	390
Apparel & Accessories	27,081	28,569	31,198	1,488	2,619
Apparel, Accessories Stores	20,877	21,977	24,241	1,100	2,264
Shoe Stores	6,204	6,592	6,947	388	355
Furniture & Appliances	16,375	19,204	22,704	2,329	3,500
Home Furnishing Stores	9,694	10,428	10,982	734	554
Appliance, TV, Radio Stores	7,181	8,776	11,722	1,595	2,946
Eating & Drinking Places	90,967	108,656	123,012	17,789	14,356
Misc. Retail Trade Stores	54,128	58,535	64,145	4,407	5,610
Drug Stores	13,811	14,194	14,069	383	-125
Liquor Stores	7,051	7,387	8,885	336	1,498
Farm, Garden Supply Stores	1,082	1,177	1,122	95	-55
Jewelry Stores	3,226	3,266	3,659	40	393
Fuel & Ice Dealers	8,021	8,218	7,586	197	-632
Retail Florists	3,073	3,080	2,842	7	-238
Misc. Retail Trade Stores	17,864	21,213	25,982	3,349	4,769
FINANCE, INSURANCE, & REAL ESTATE	133,806	144,324	159,915	10,518	15,591
Finance, Total	52,573	55,367	65,058	2,794	9,691
Banking	38,146	41,867	50,919	3,721	9,052
Credit Agencies	5,541	4,963	4,954	-578	-9
Stock Brokers, Investment	3,386	8,537	9,185	-349	648
Insurance	59,853	62,137	66,016	2,284	3,879
Real Estate, RE Law Insurance	21,380	26,820	28,841	5,440	2,021
SERVICES, TOTAL	642,318	696,023	800,378	53,705	104,355
Hotels & Lodging Places	18,751	20,694	23,663	1,943	2,969
Hotels & Motels	15,052	17,719	20,616	2,667	2,897
Lodging Places, Except Hotels	3,699	2,975	3,047	-724	72
Other Personal Services	41,186	35,934	30,528	-5,252	-5,406
Laundry, Cleaning	17,586	13,343	9,080	-4,243	-4,263
Beauty Shops	12,385	12,304	12,072	-581	-232
Barber Shops	4,292	3,797	2,159	-495	-1,638
Shoe Repair Shops	691	519	295	-172	-224
Dressmaking Shops	856	751	932	-105	181
Other Personal Services	4,876	5,220	5,990	344	770
Miscellaneous Business Services	64,527	71,029	76,683	6,502	5,654
Advertising	2,769	2,936	3,078	167	142
Business Management Services	5,212	5,647	6,200	435	553
Commercial R. & D.	3,989	4,443	4,900	454	557
Computer Programming	3,295	3,661	3,922	366	261
Detective & Protective	3,100	3,432	3,579	332	247
Employment, Temporary Help	3,684	4,127	4,688	443	561
Services, Buildings	10,450	11,693	14,047	1,243	2,354
Other Misc. Business Services	32,028	35,090	36,269	3,062	1,179
Automobile Repair Services	14,668	16,034	18,329	1,366	2,295
Auto Repair	9,304	10,608	12,545	1,304	1,937
Auto Services, Except Repair	5,364	5,426	5,784	62	358
Other Repair Services	7,938	11,008	12,104	3,070	1,096
Electrical Repair Shops	2,993	4,416	4,505	1,423	89
Other Repair Services	4,945	6,592	7,599	1,647	1,007

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970 - 1974	1974 - 1985
Motion Pictures, Theatres	5,861	5,711	6,442	-150	731
Miscellaneous Entertainment	11,018	12,461	13,383	1,443	922
Bowling Alleys, Billiards	1,602	1,664	1,602	62	-62
Miscellaneous Entertainment	9,416	10,797	11,781	1,381	984
Medical, Other Health	190,452	215,993	263,670	25,541	47,677
Offices of Physicians	14,511	17,564	22,228	3,253	4,664
Offices of Dentists	9,123	11,040	15,514	1,917	4,474
Offices of Chiropractors	183	332	500	149	268
Hospitals	122,128	132,082	144,786	9,954	12,704
Convalescent Institutions	27,370	35,336	53,151	7,466	17,315
Health Practitioners, N.E.C.	3,540	4,058	5,812	518	1,754
Health Services, N.E.C.	13,297	15,581	21,579	2,284	5,998
Legal Services	13,936	15,580	17,166	1,644	1,586
Educational Services	173,240	191,493	235,486	18,253	43,993
Elementary, Secondary	100,058	115,986	139,411	15,948	23,425
College & Universities	63,189	62,289	81,840	-900	19,551
Libraries	4,717	4,975	5,949	258	974
Educational Services, N.E.C.	5,296	8,243	9,286	2,947	43
Museums, Art Galleries, Zoos	1,283	1,989	2,223	706	234
Nonprofit Organizations	41,616	43,501	47,792	1,885	4,291
Religious Organizations	14,904	15,430	17,197	526	1,767
Welfare Services	14,529	15,398	16,723	869	1,325
Residential Welfare	1,146	1,214	1,431	68	217
Nonprofit Membership	11,037	11,459	12,441	422	982
Private Households	25,941	20,803	16,269	-5,138	-4,534
Other Professional Related Services	31,901	33,793	36,640	1,892	2,847
Engineering & Architectural Services	16,246	16,419	17,055	173	656
Accounting, Auditing	8,826	9,564	11,300	738	1,756
Misc. Professional Services	6,829	7,810	8,285	981	475
GOVERNMENT, TOTAL 1/	118,872	119,752	126,737	880	6,985
Federal Public Admin.	50,388	46,068	46,685	-4,320	617
Postal Service	24,104	23,048	22,036	-1,056	-1,012
Federal Public Admin.	26,284	23,020	24,849	-3,264	1,829
State Public Admin.	19,038	20,650	21,856	1,592	1,226
Local Public Admin.	49,446	53,054	57,996	3,608	4,942

Government workers involved in activities unique to government are classified in the public administrative industry. Government workers in agencies engaged in activities also carried on by private industry such as shipbuilding, education, and medical services, are classified in the appropriate industry category.

TABLE 2

 AVERAGE ANNUAL NUMBER OF JOB OPENINGS, BY OCCUPATION
 DURING 1970 - 1974 PERIOD
 MASSACHUSETTS

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
TOTAL, ALL OCCUPATIONS	2,355,685	2,436,468	123,047	20,213	102,842
Professional, Technical, Kindred	368,103	401,568	23,980	8,379	15,601
Engineers, Technical	43,568	45,153	1,122	398	724
Engineers, Aero-Astronautical	825	741	-14	-21	7
Engineers, Chemical	1,268	1,203	0	-16	16
Engineers, Civil	6,566	6,165	47	-100	147
Engineers, Electrical	13,525	13,812	233	72	161
Engineers, Industrial	6,958	8,272	466	329	137
Engineers, Mechanical	7,449	7,090	33	-90	123
Engineers, Metallurgical	480	526	22	12	10
Engineers, Mining	15	15	1	0	1
Engineers, Petroleum	0	1	1	1	0
Engineers, Sales	1,671	1,504	-12	-42	30
Engineers, Other	4,811	5,824	345	253	92
Life & Physical Scientists	6,151	6,527	252	96	156
Agricultural Scientists	253	244	7	-2	9
Atmospheric, Space Scientists	123	122	2	0	2
Biological Scientists	1,021	1,060	46	10	36
Chemists	3,320	3,538	144	55	89
Geologists	99	147	13	12	1
Marine Scientists	44	79	10	9	1
Physicists & Astronomers	1,242	1,284	29	11	18
Life, Physical Scientists, N.E.C.	49	53	1	1	0
Mathematical Specialists	1,271	1,679	167	103	64
Actuaries	322	653	100	83	17
Mathematicians	322	357	23	9	14
Statisticians	627	669	44	11	33
Engineers, Science Technicians	30,922	32,994	1,137	518	619
Agricultural & Biological Technicians, Except Health	494	562	41	17	24
Chemical Technicians	1,976	2,140	85	41	44
Drafters	11,686	11,756	206	18	188
Electrical & Electronic Technicians	7,021	7,762	292	185	107
Industrial Engineering Technicians	900	964	32	16	16
Mathematical Technicians	11	12	0	0	0
Mechanical Engineering Technicians	559	624	25	16	9
Surveyors	1,490	1,665	74	44	30
Engineering, Science Technicians, N.E.C.	6,785	7,509	382	181	201
Medical Workers, Except Technicians	58,778	62,469	4,558	925	3,633
Chiropractors	149	253	38	26	12
Dentists	3,649	3,715	190	17	173
Dietitians	1,154	1,200	91	12	79
Optometrists	820	701	-6	-30	24
Pharmacists	4,894	5,092	245	50	195
Physicians, M. D. Osteopaths	11,059	11,278	543	55	488
Podiatrists	499	474	20	-6	26
Registered Nurses	32,793	35,245	2,970	613	2,357
Therapists	3,268	3,985	446	179	267
Veterinarians	452	475	16	6	10
Other Medical & Health Workers	41	51	5	3	2

TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Health Technologists & Technicians	11,217	13,543	1,522	582	940
Clinical Lab. Technologists & Technicians	5,190	5,641	471	113	358
Dental Hygienists	1,070	1,410	212	85	127
Health Record Technologists & Technicians	478	611	94	33	61
Radiological Technologists & Technicians	1,850	2,677	399	207	192
Therapy Assistants	111	130	14	5	9
Other Health Technologists & Technicians	2,518	3,074	332	139	193
Technicians, Except Health	3,617	4,182	242	141	101
Airplane Pilots	751	1,007	73	64	9
Air Traffic Controllers	352	302	-7	-13	6
Embalmers	346	326	4	-5	9
Flight Engineers	133	129	0	-1	1
Radio Operators	633	672	30	10	20
Tool Programmers, Numerical	178	195	8	4	4
Other Technicians, Except Health	1,224	1,551	134	82	52
Computer Specialists	11,086	12,053	521	242	279
Computer Programmers	7,260	7,822	353	141	212
Computer Systems Analysts	3,274	3,614	143	85	58
Other Computer Specialists	552	617	25	16	9
Social Scientists	4,419	6,228	598	452	146
Economists	2,531	3,602	345	268	77
Political Scientists	137	145	5	2	3
Psychologists	1,251	1,956	232	176	56
Sociologists	46	43	0	-1	1
Urban & Regional Planners	334	362	11	7	4
Other Social Scientists	120	120	5	0	5
Teachers	92,954	98,784	6,079	1,458	4,621
Adult Education Teachers	1,638	1,934	151	74	77
College & University Teachers	18,604	18,983	510	95	415
Elementary School Teachers	33,318	32,210	1,802	-277	2,079
Preschool & Kindergarten Teachers	4,188	5,400	644	303	341
Secondary School Teachers	28,606	31,060	1,782	614	1,168
Teachers, N.E.C., Except Colleges & Universities	6,600	9,197	1,190	649	541
Writers, Artists, & Entertainers	26,531	30,226	1,834	926	908
Actor	249	236	13	-3	16
Athletes & Kindred Workers	1,743	2,181	156	110	46
Authors	1,207	1,209	26	1	25
Dancers	109	118	9	2	7
Designers	4,438	4,563	155	31	124
Editors & Reporters	5,691	5,645	56	-12	68
Musicians & Composers	2,863	3,669	368	202	166
Painters & Sculptors	3,554	4,817	510	316	194
Photographers	2,077	2,252	105	44	61
Public Relations Specialists	2,184	2,666	219	121	98
Radio & TV Announcers	404	463	22	15	7
Writers, Artists, & Entertainers, N.E.C.	2,012	2,407	195	99	96
Other Professional & Technical	77,589	87,730	5,948	2,538	3,410
Accountants	24,804	27,110	1,492	577	915
Architects	2,562	2,633	83	18	65
Archivists & Curators	308	427	51	30	21
Clergy	5,053	5,363	202	78	124
Religious, Except Clergy	1,638	1,677	59	10	49
Farm Management Advisors	66	63	1	-1	2

TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Foresters & Conservationists	411	465	28	14	14
Home Management Advisors	112	93	1	-5	6
Judges	231	235	21	1	20
Lawyers	10,100	11,135	776	259	517
Librarians	3,835	5,121	643	322	321
Operations, Systems Research	2,804	3,337	191	133	58
Personnel Labor Relations	7,269	7,581	328	78	250
Research Workers, N.E.C.	5,589	6,976	637	347	290
Recreation Workers	1,958	2,934	395	244	151
Social Workers	7,634	9,050	867	354	513
Vocational, Education Counselors	3,215	3,530	173	79	94
Managers, Officials, & Proprietors	230,838	259,447	15,462	7,153	8,309
Buyers, Sales, & Loan Managers	45,267	47,159	1,991	473	1,518
Bank, Financial Managers	12,939	13,963	720	256	464
Credit Managers	2,402	2,143	33	-65	98
Buyers, Shippers, Farm Products	463	315	-27	-37	10
Buyers, Wholesale, Retail	5,430	5,251	209	-45	254
Purchasing Agents, Buyers, N.E.C.	5,480	5,677	223	49	174
Sales Manager, Retail Trade	9,329	9,952	468	156	312
Sales Manager, Except Retail Trade	9,224	9,858	365	159	206
Administrators, Public Inspectors	21,302	23,676	1,505	594	911
Assessors, Controllers, Local Public Administration	800	806	64	2	62
Construction Inspectors, Public Administration	600	556	19	-11	30
Health Administrators	4,427	5,949	690	381	309
Inspectors, Except Construction, Public Admin.	2,047	2,238	119	48	71
Officials & Administrators, Public Admin.	6,474	6,311	209	-41	250
Postmasters & Mail Superintendents	786	684	-1	-26	25
School Administrators, College	1,566	1,710	62	36	26
School Administrators, Elementary & Secondary	4,602	5,422	343	205	138
Other Managers, Officials, & Proprietors	164,269	188,612	11,966	6,086	5,880
Funeral Directors	1,375	1,416	74	10	64
Managers, Superintendents, Building	1,867	2,424	283	139	144
Office Managers, N.E.C.	8,851	9,490	552	160	392
Officers, Pilots, Purfers, Ship	603	578	14	-6	20
Officials of Lodges, Unions	2,076	2,056	76	-5	81
Railroad Conductor	526	423	-13	-26	13
Restaurant, Cafe & Bar Managers	13,252	15,231	711	495	216
Other Managers & Administrators, N.E.C.	135,719	156,994	10,269	5,319	4,950
Sales Workers	152,425	155,558	7,524	783	6,741
Advertising Agents, Sales Workers	1,547	1,735	118	47	71
Auctioneers	65	65	2	0	2
Demonstrators	1,067	1,177	106	28	78
Hucksters & Peddlers	2,717	2,754	153	9	144
Insurance Agents, Brokers, etc.	12,877	14,045	748	292	456
Newspaper Carriers & Vendors	1,411	1,269	-14	-36	22
Real Estate Agents, Brokers	8,027	10,964	1,261	734	527
Stock & Bond Sales Agents	3,283	3,035	47	-62	109
Sales & Sales Workers, N.E.C.	121,431	120,514	5,103	-229	5,332

TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Clerical Workers	456,598	471,445	33,564	3,716	29,848
Stenographers, Typists & Secretaries	131,237	138,365	13,304	1,782	11,522
Secretaries, Legal	3,654	4,427	613	193	420
Secretaries, Medical	5,107	6,229	839	281	558
Secretaries, Other	83,089	89,210	9,162	1,530	7,632
Stenographers	2,763	2,059	-55	-176	121
Typists	36,624	36,440	2,745	-46	2,791
Office Machine Operators	24,189	23,683	910	-127	1,037
Bookkeeping, Billing Operators	2,192	1,653	-44	-135	91
Calculating Machine Operators	1,298	1,015	-7	-71	64
Computer, Peripheral Equipment Operators	5,436	8,582	978	787	191
Duplicating Machine Operators	623	674	43	13	30
Keypunch Operator	12,201	9,482	-135	-680	545
Tabulating Machine Operators	243	73	-41	-43	2
Other Office Machine Operators	2,196	2,204	116	2	114
Other Clerical Workers	301,172	309,397	19,350	2,061	17,289
Bank Tellers	9,977	10,625	857	162	695
Billing Clerks	4,696	5,243	517	137	380
Bookkeepers	48,717	49,983	3,436	317	3,119
Cashiers	30,260	33,474	2,975	804	2,171
Clerical Assistants, Social Welfare	51	366	104	79	25
Clerical Supervisors, N.E.C.	5,570	5,866	335	74	261
Collectors, Bill & Account	1,466	1,342	24	-31	55
Counter Clerks, Except Food	8,850	9,051	603	50	553
Dispatchers, Starters, Vehicle	2,099	2,274	125	46	79
Enumerators & Interviewers	1,081	996	30	-21	51
Estimators, Investigators, N.E.C.	10,608	11,016	637	102	535
Expeditors, Production Controllers	7,208	7,590	336	96	240
File Clerks	10,097	9,496	502	-150	652
Insurance Adjusters & Examiners	4,132	4,750	315	155	160
Library Attendants & Assistants	5,732	5,721	413	-3	416
Mail Carriers, Post Office	8,560	8,384	93	-44	137
Mail Handlers, Except Post Office	5,036	5,208	292	43	249
Messengers & Office Helpers	2,419	2,292	90	-32	122
Meter Readers, Utilities	1,110	1,065	3	-11	14
Payroll, Time Keeping Clerks	6,313	6,489	454	44	410
Postal Clerks	10,910	9,976	34	-234	268
Proofreaders	1,154	1,206	99	13	86
Real Estate Appraisers	722	837	82	29	53
Receptionists	10,778	10,594	852	-46	898
Shipping, Receiving Clerks	19,351	18,943	413	-102	515
Statistical Clerks	8,529	8,912	612	96	516
Stock Clerks, Storekeepers	15,542	14,485	229	-264	493
Teachers' Aides, Except Monitors	2,904	4,159	537	314	223
Telegraph Messengers	46	37	-1	-2	1
Telegraph Operators	232	206	3	-7	10
Telephone Operators	15,437	15,813	1,064	94	970
Ticket Station & Express Agents	2,682	2,742	123	15	108
Weighers	712	701	25	-3	28
Miscellaneous Clerical Workers, N.E.C.	38,191	39,555	3,137	341	2,796

TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Transportation, Public Utility Crafts	13,912	16,903	906	748	158
Electric Power Line Installers & Repairers	2,843	2,855	39	3	36
Locomotive Engineers	469	425	-1	-11	10
Locomotive Engineers Helpers	157	76	-20	-20	0
Power Station Operators	539	505	3	-9	12
Telephone Installers & Repairers	8,401	11,325	823	731	92
Telephone Line Installers & Splicers	1,503	1,717	62	54	8
Other Crafts, Kindred Workers	37,878	37,020	1,101	-215	1,316
Bakers	4,571	4,273	59	-75	134
Cabinetmakers	1,837	1,789	12	-11	52
Carpet Installers	1,075	1,302	68	57	11
Crane, Derrick, & Hoist Operators	2,943	2,893	50	-13	63
Decorators & Window Dressers	2,191	2,197	102	2	100
Dental Laboratory Technicians	1,172	1,049	8	-31	39
Furniture & Wood Finishers	803	810	30	2	28
Furriers	70	67	2	-1	3
Glaziers	794	1,057	88	66	22
Inspectors, Log & Lumber	54	45	0	-2	2
Inspectors, Other	3,150	3,275	136	31	105
Jewelers & Watchmakers	1,237	1,254	69	4	65
Millers, Grain, Flour, Feed	28	31	1	1	0
Motion Picture Projectionists	383	397	42	4	38
Opticians, Lens Grinders & Polishers	1,507	2,181	260	169	91
Piano & Organ Tuners & Repairers	232	292	35	15	20
Shipfitters	618	216	-96	-101	5
Shoe Repairers	1,618	1,110	-70	-127	57
Sign Painters & Letterers	765	755	31	-3	34
Stationary Engineers	4,281	4,299	136	5	131
Stone Cutters & Stone Carvers	215	223	11	2	9
Tailors	2,604	2,318	45	-72	117
Upholsterers	1,500	1,603	95	26	69
Craft & Kindred Workers, N.E.C.	4,230	3,584	-41	-162	121
Operatives	412,305	398,125	10,456	-3,545	14,005
Operatives, Except Transportation	336,377	320,273	8,391	-4,026	12,419
Semiskilled Metal Working	33,925	33,374	748	-138	886
Drill Press Operators	2,629	2,539	53	-23	76
Furnace Tenders, Smelters, & Pourers, Metal	864	873	32	2	30
Grinding Machine Operatives	4,683	4,836	164	38	126
Heaters, Metal	112	107	1	-1	2
Lathe & Milling Machine Operatives	4,593	4,449	64	-36	100
Metal Platers	1,682	1,669	39	-3	42
Other Precision Machine Operatives	2,982	3,001	78	5	73
Punch & Stamping Press Operatives	3,435	3,111	25	-81	106
Solderers	3,482	3,024	12	-115	127
Welders & Flame Cutters	9,463	9,765	280	76	204
Semiskilled Textile	11,732	9,839	-98	-473	376
Carding, Lapping, & Combing Operatives	490	334	-27	-39	12
Knitters, Loopers, & Toppers	880	845	23	-9	32
Spinners, Twisters, & Winders	2,487	2,116	14	-93	107
Weavers	944	670	-43	-69	26
Other Textile Operatives	6,931	5,874	-65	-264	199



TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Craft & Kindred Workers	306,841	308,484	7,360	411	6,951
Construction Crafts Workers	132,914	128,688	1,873	-1,056	2,929
Carpenters & Apprentices	32,491	29,089	-84	-851	767
Brick & Stonemasons & Apprentices	4,826	3,969	-141	-214	73
Bulldozer Operators	1,392	1,624	85	58	27
Cement & Concrete Finishers	1,057	1,229	55	43	12
Electricians & Apprentices	12,946	13,640	334	174	160
Excavating, Grading & Machine Operators	4,599	4,250	-25	-87	62
Floor Layers, Except Tile Setters	894	669	-43	-56	13
Painters & Apprentices	12,334	12,647	433	78	355
Paperhangers	602	1,057	158	114	44
Plasterers & Apprentices	819	649	-29	-43	14
Plumbers, Pipefitters & Apprentices	11,266	10,598	-31	-167	136
Roofers & Slaters	1,868	2,316	154	112	42
Structural Metal Craft Workers	2,291	2,215	18	-19	37
Tilesetters	1,058	1,213	59	39	20
Blue-Collar Worker Supervisors, N.E.C.	44,471	43,523	930	-237	1,167
Metalworking Craft Workers, Except Mechanics	37,949	36,687	434	-316	751
Blacksmiths	189	177	2	-3	5
Boilermakers	508	492	-2	-4	2
Heat Treaters, Annealers, & Temperers	868	818	9	-13	22
Forge & Hammer Operators	809	873	32	16	16
Job & Die Setters, Metal	2,550	2,627	86	19	67
Machinists & Apprentices	16,280	15,442	96	-210	306
Millwrights	1,682	1,712	48	8	40
Molders & Apprentices, Metal	1,713	1,675	20	-10	30
Pattern & Model Makers	1,642	1,455	-4	-47	43
Rollers & Finishers, Metal	547	587	26	10	16
Sheetmetal Workers & Apprentices	4,966	4,641	-4	-81	77
Tool & Die-makers & Apprentices	6,195	6,188	125	-2	127
Mechanics, Repairers, & Installers	68,376	73,796	2,742	1,355	1,387
Air Cond., Heating, & Refrig. Mechanics & Repairers	4,626	6,928	697	576	121
Aircraft Mechanics	1,436	1,531	40	24	16
Auto Accessories Installers	146	145	1	0	1
Auto Body Repairers	4,770	5,057	130	72	58
Auto Mechanics & Apprentices	22,496	23,057	549	140	409
Data Processing Machine Repairers	1,178	1,692	145	129	16
Farm Implement Mechanics	737	864	58	32	26
Heavy Equipment Mechanics Including Diesel	17,349	18,234	616	221	395
Household Appliance Mechanics	3,303	3,706	172	101	71
Locom Fixers	431	338	-6	-23	17
Office Machine Repairers	1,748	1,701	12	-12	24
Radio & Television Repairers	3,964	3,900	71	-16	87
Railroad & Car Shop Repairers	570	463	-14	-27	13
Other Mechanics & Apprentices	5,622	6,180	273	140	133
Printing Trade Craft Workers	15,812	15,390	304	-106	410
Bookbinders	1,384	1,412	73	7	66
Composition & Typesetters	6,653	6,176	58	-119	177
Electrotypes & Stereotypers	199	106	-20	-23	3
Engravers, Except Photoengravers	734	694	12	-10	22
Photoengravers & Lithographers	1,315	1,502	85	47	38
Pressmen, Plate Printers & Apprentices	5,527	5,500	97	-7	104



TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Semiskilled Packing, Inspecting	57,128	57,159	2,682	8	2,674
Checkers, Examiners, & Inspectors, Mfg.	25,521	26,797	1,517	319	1,198
Graders & Sorters, Manufacturing	1,438	1,222	7	-54	61
Meat Wrappers, Retail Trade	2,429	2,751	251	81	170
Packers & Wrappers, Except Meat & Produce	27,491	26,132	892	-340	1,232
Produce Graders & Packers, Except Factory & Farm	249	257	15	2	13
Other Operatives, Except Transportation	233,592	219,901	5,059	-3,423	8,483
Asbestos & Insulation Workers	791	703	-8	-22	14
Assemblers	31,062	36,330	2,978	1,317	1,661
Blasters	68	63	0	-1	1
Bottling & Canning Operatives	990	896	11	-24	35
Surveyor Helpers	174	166	-1	-2	1
Clothing Ironers & Pressers	6,301	4,836	-179	-366	187
Cutting Operatives, N.E.C.	8,984	8,431	181	-138	319
Dressmakers, Except Factory	2,638	2,411	120	-57	177
Drillers, Earth	794	877	45	21	24
Dry Wall Installers, & Lathers	839	1,285	125	112	13
Dyers	1,796	1,739	31	-14	45
Filers, Polishers, Sanders, & Buffers	4,872	4,647	81	-56	137
Garage Workers & Gas Station Attendants	11,318	9,616	-306	-426	120
Laundry & Dry Cleaning Operatives, N.E.C.	5,904	5,029	49	-219	268
Meat Cutters & Butchers, Except Mfg.	7,195	6,729	83	-117	200
Meat Cutters, Butchers	1,032	792	-37	-60	23
Milliners	106	92	3	-4	7
Mine Operatives, N.E.C.	114	87	-3	-7	4
Mixing Operatives	2,525	2,379	14	-37	51
Oilers & Greasers, Except Auto	1,020	898	-10	-31	21
Painters, Manufactured Articles	4,153	3,916	50	-59	109
Photographic Process Workers	3,131	3,442	224	78	146
Riveters & Fasteners	1,100	980	14	-30	44
Sailors & Deckhands	488	432	-8	-14	6
Sawyers	1,427	1,370	45	-14	59
Sewers & Stitchers	34,795	29,889	399	-1,227	1,626
Shoemaking Machine Operatives	8,699	5,120	-683	-895	212
Furnace Tenders & Stokers, Except Metal	3,167	2,830	23	-84	107
Winding Operatives, N.E.C.	3,890	3,946	178	14	164
Miscellaneous Machine Operatives	49,461	48,340	1,314	-280	1,594
Operatives, N.E.C.	34,758	31,630	326	-782	1,108
Transportation Equipment Operatives	75,928	77,852	2,065	481	1,586
Boat Operators	180	178	2	-1	3
Bus Drivers	7,615	8,932	631	329	302
Conductors & Operators, Urban Rail Transit	822	747	-4	-19	15
Delivery & Route Workers	21,291	20,466	150	-206	356
Fork Lift & Tow Motor Operators	4,805	5,426	236	155	81
Rail Vehicle Operators, N.E.C.	5	4	0	0	0
Parking Attendants	872	1,049	90	44	46
Railroad Brake Operators	643	512	-24	-33	9
Railroad Switch Operators	304	270	2	-9	11
Taxicab Drivers & Chauffeurs	5,959	7,383	591	356	235
Truck Drivers	33,432	32,885	391	-137	528
Service Workers	314,189	330,591	22,830	4,100	18,728
Cleaning Service Workers	59,917	59,711	3,380	-52	3,432
Lodging Quarters Cleaners, Except Private Household	5,557	5,529	447	-7	454
Building Interior Cleaners, N.E.C.	19,397	20,122	1,521	181	1,340
Janitors & Sextons	34,963	34,060	1,412	-226	1,638

TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Food Service Workers	105,809	116,400	8,539	2,648	5,890
Bartenders	5,821	7,373	553	388	165
Waiter's Assistants	2,870	3,984	337	279	58
Cooks, Except Private	20,828	22,919	1,508	523	985
Dishwashers	7,273	6,989	184	-71	255
Food Counter & Fountain Workers	16,224	19,262	1,803	760	1,043
Waiters	38,225	39,882	2,904	414	2,490
Food Workers, N.E.C., Except Private	14,568	15,991	1,250	356	894
Health Service Workers	53,606	59,554	6,264	1,487	4,777
Dental Assistants	3,527	3,973	507	112	395
Health Aides, Except Nursing	4,898	5,853	699	239	460
Health Trainees	1,500	877	-100	-156	56
Lay Midwives	0	0	0	0	0
Nursing Aides, Orderlies, & Attendants	26,986	27,539	2,121	138	1,983
Practical Nurses	16,695	21,312	3,037	1,154	1,883
Personal Service Workers	36,936	36,502	2,346	-109	2,453
Flight Attendants	1,198	1,405	214	52	162
Attendants, Recreation & Amusement	1,712	1,656	74	-14	88
Attendants, Personal Service, N.E.C.	2,143	2,094	153	-12	165
Baggage Porters & Bellhops	466	458	5	-2	7
Barbers	4,749	3,663	-146	-272	126
Boarding & Lodging Housekeepers	855	659	11	-49	60
Boothblacks	44	15	-7	-7	0
Child Care Workers, Except Private	4,892	5,238	588	87	501
Elevator Operators	1,297	1,066	5	-58	63
Hairdressers, Cosmetologists	13,722	13,011	705	-178	883
Housekeepers, Except Private	3,725	3,752	231	7	224
School Monitors	891	1,202	131	78	53
Ushers, Recreation & Amusement	573	528	4	-11	15
Welfare Service Aides	699	1,755	378	272	106
Protective & Service Workers	40,730	44,783	2,266	1,014	1,252
Crossing Guards & Bridgetenders	1,987	1,979	128	-2	130
Fire Fighters	11,413	12,994	580	395	185
Guards	12,097	13,144	968	262	706
Marshals & Constables	84	86	5	1	4
Police & Detectives	14,475	15,783	505	327	178
Sheriffs & Bailiffs	674	797	80	31	49
Private Household Workers	17,191	13,641	35	-888	924
Child Care Workers	6,055	5,187	122	-217	339
Cooks, Private	677	543	7	-34	41
Housekeepers, Private	2,305	1,795	-3	-128	125
Launderers, Private Household	107	68	-5	-10	5
Cleaners & Servants, Private Household	8,047	6,048	-86	-500	414
Laborers, Except Farm	102,225	100,504	1,877	-430	2,310
Animal Caretakers, Except Farm	1,602	2,323	299	180	119
Carpenters, Helpers	3,336	2,430	-197	-227	30
Construction Laborers, Exc. Carpenter's Help.	21,912	18,802	-493	-778	285
Fishers, Hunters, & Trappers	2,114	1,836	-30	-70	40
Freight, Material Handlers	15,189	15,304	323	29	294

TABLE 2 (Continued)

OCCUPATIONS	Employ- ment 1970	Employ- ment 1974	Labor Demand 1970 - 1974		
			Total Demand	Due to Growth	Due to Separations
Garbage Collectors	1,529	1,858	121	82	39
Gardeners & Groundskeepers, Except Farm	12,230	12,774	647	136	511
Longshore Workers & Stevedores	1,054	948	-2	-27	25
Timbercutting & Logging Workers	256	206	-10	-13	3
Stock Handlers	23,313	24,953	866	410	456
Teamsters	31	25	-1	-2	1
Vehicle Washers & Equipment Cleaners	5,140	4,895	53	-61	114
Warehouse Laborers, N.E.C.	3,622	3,357	-10	-66	56
Other Laborers	10,897	10,793	311	-26	337
Farmers & Farm Workers	12,161	10,746	-6	-354	349
Farmers & Farm Managers	4,919	4,437	49	-121	170
Farmers (Owners & Tenants)	4,642	4,206	53	-109	162
Farm Managers	277	231	-4	-12	8
Farm Laborers, Farm Supervisors	7,242	6,309	-55	-233	179
Farm Labor Supervisors	326	315	9	-3	12
Farm Laborers, Wage Workers	4,452	4,241	46	-53	99
Farm Laborers, Unpaid Family	2,449	1,731	-114	-180	66
Farm Laborers, Self-Employed	15	22	4	2	2

Note: May not add to totals due to rounding.



TABLE 3

 AVERAGE ANNUAL NUMBER OF JOB OPENINGS, BY OCCUPATION
 DURING 1974 - 1985 PERIOD
 MASSACHUSETTS

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
TOTAL, ALL OCCUPATIONS	2,436,468	2,635,143	120,885	18,043	102,842
Professional, Technical, Kindred	401,568	454,129	20,370	4,769	15,601
Engineers, Technical	45,153	47,866	971	247	724
Engineers, Aero-Astronautical	741	722	5	-2	7
Engineers, Chemical	1,203	1,278	23	7	16
Engineers, Civil	6,165	6,360	165	18	147
Engineers, Electrical	13,812	15,444	309	148	161
Engineers, Industrial	8,272	8,279	138	1	137
Engineers, Mechanical	7,090	7,847	192	69	123
Engineers, Metallurgical	526	556	13	3	10
Engineers, Mining	15	25	2	1	1
Engineers, Petroleum	1	16	1	1	0
Engineers, Sales	1,504	1,572	36	6	30
Engineers, Other	5,824	5,767	87	-5	92
Life & Physical Scientists	6,527	6,731	175	19	156
Agricultural Scientists	244	201	5	-4	9
Atmospheric, Space Scientists	122	138	3	1	2
Biological Scientists	1,060	1,001	31	-5	36
Chemists	3,538	3,682	102	13	89
Geologists	147	146	1	0	1
Marine Scientists	79	130	6	5	1
Physicists & Astronomers	1,284	1,371	26	8	18
Life, Physical Scientists, N.E.C.	53	62	1	1	0
Mathematical Specialists	1,679	2,004	93	29	64
Actuaries	653	788	29	12	17
Mathematicians	357	458	23	9	14
Statisticians	669	758	41	8	33
Engineers, Science Technicians	32,994	38,847	1,150	531	619
Agricultural & Biological Technicians, Except Health	562	676	34	10	24
Chemical Technicians	2,140	2,454	73	29	44
Drafters	11,756	13,618	357	169	188
Electrical & Electronic Technicians	7,762	9,512	266	159	107
Industrial Engineering Technicians	964	1,077	26	10	16
Mathematical Technicians	12	19	1	1	0
Mechanical Engineering Technicians	624	756	21	12	9
Surveyors	1,665	2,011	61	31	30
Engineering, Science Technicians, N.E.C.	7,509	8,724	311	110	201
Medical Workers, Except Technicians	62,469	72,122	4,510	877	3,633
Chiropractors	253	469	32	20	12
Dentists	3,715	5,200	308	135	173
Dietitians	1,200	1,274	86	7	79
Optometrists	701	958	47	23	24
Pharmacists	5,092	5,114	197	2	195
Physicians, M. D. Osteopaths	11,278	13,852	722	234	488
Podiatrists	474	561	34	8	26
Registered Nurses	35,245	37,866	2,595	238	2,357
Therapists	3,985	5,956	446	179	267
Veterinarians	475	765	36	26	10
Other Medical & Health Workers	51	107	7	5	2



TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Health Technologists & Technicians	13,543	17,465	1,297	357	940
Clinical Lab. Technologists & Technicians	5,641	5,991	390	32	358
Dental Hygienists	1,410	2,740	248	121	127
Health Record Technologists & Technicians	611	951	92	31	61
Radiological Technologists & Technicians	2,677	2,804	204	12	192
Therapy Assistants	130	198	15	6	9
Other Health Technologists & Technicians	3,074	4,781	348	155	193
Technicians, Except Health	4,182	5,564	227	126	101
Airplane Pilots	1,007	1,060	14	5	9
Air Traffic Controllers	302	356	11	5	6
Embalmers	326	334	10	1	9
Flight Engineers	129	131	1	0	1
Radio Operators	672	759	28	8	20
Tool Programmers, Numerical	195	220	6	2	4
Other Technicians, Except Health	1,551	2,704	157	105	52
Computer Specialists	12,053	15,026	549	270	279
Computer Programmers	7,822	9,359	352	140	212
Computer Systems Analysts	3,614	4,858	171	113	58
Other Computer Specialists	617	809	26	17	9
Social Scientists	6,228	7,149	222	76	146
Economists	3,602	4,261	137	60	77
Political Scientists	145	167	-3	-6	3
Psychologists	1,956	2,054	65	9	56
Sociologists	43	55	2	1	1
Urban & Regional Planners	362	441	11	7	4
Other Social Scientists	120	171	10	5	5
Teachers	98,784	105,804	5,259	638	4,621
Adult Education Teachers	1,934	2,364	116	39	77
College & University Teachers	18,983	20,170	523	108	415
Elementary School Teachers	32,210	33,985	2,240	161	2,079
Preschool & Kindergarten Teachers	5,400	6,457	437	96	341
Secondary School Teachers	31,060	32,855	1,331	163	1,168
Teachers, N.E.C., Except Colleges & Universities	9,197	9,973	612	71	541
Writers, Artists, & Entertainers	30,226	33,968	1,248	340	908
Actor	236	363	28	12	16
Athletes & Kindred Workers	2,181	2,480	73	27	46
Authors	1,209	955	2	-23	25
Dancers	118	160	11	4	7
Designers	4,563	4,761	142	18	124
Editors & Reporters	5,645	6,000	100	32	68
Musicians & Composers	3,669	4,498	241	75	166
Painters & Sculptors	4,817	5,270	235	41	194
Photographers	2,252	2,502	84	23	61
Public Relations Specialists	2,666	2,915	121	23	98
Radio & TV Announcers	463	509	11	4	7
Writers, Artists, & Entertainers, N.E.C.	2,407	3,555	200	104	96
Other Professional & Technical	87,730	101,583	4,669	1,259	3,410
Accountants	27,110	30,870	1,257	342	915
Architects	2,633	2,814	81	16	65
Archivists & Curators	427	552	32	11	21
Clergy	5,363	5,763	160	36	124
Religious, Except Clergy	1,677	1,834	63	14	49
Farm Management Advisors	63	42	0	-2	2

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Foresters & Conservationists	465	682	34	20	14
Home Management Advisors	93	79	5	-1	6
Judges	235	250	21	1	20
Lawyers	11,135	12,834	671	154	517
Librarians	5,121	5,462	352	31	321
Operations, Systems Research	3,337	4,940	204	146	58
Personnel Labor Relations	7,581	8,055	293	43	250
Research Workers, N.E.C.	6,976	9,624	531	241	290
Recreation Workers	2,934	3,582	210	59	151
Social Workers	9,050	9,485	553	40	513
Vocational, Education Counselors	3,530	4,715	202	108	94
Managers, Officials, & Proprietors	259,447	279,684	10,150	1,841	8,309
Buyers, Sales, & Loan Managers	47,159	57,333	2,443	925	1,518
Bank, Financial Managers	13,963	16,981	738	274	464
Credit Managers	2,143	2,586	138	40	98
Buyers, Shippers, Farm Products	315	390	17	7	10
Buyers, Wholesale, Retail	5,251	6,934	407	153	254
Purchasing Agents, Buyers, N.E.C.	5,677	6,882	284	110	174
Sales Manager, Retail Trade	9,952	12,079	505	193	312
Sales Manager, Except Retail Trade	9,858	11,481	354	148	206
Administrators, Public Inspectors	23,676	26,372	1,157	246	911
Assessors, Controllers, Local Public Administration	806	766	58	-4	62
Construction Inspectors, Public Administration	556	595	34	4	30
Health Administrators	5,949	7,058	410	101	309
Inspectors, Except Construction, Public Admin.	2,238	2,626	106	35	71
Officials & Administrators, Public Admin.	6,311	6,438	262	12	250
Postmasters & Mail Superintendents	684	506	9	-16	25
School Administrators, College	1,710	2,096	61	35	26
School Administrators, Elementary & Secondary	5,422	6,287	217	79	138
Other Managers, Officials, & Proprietors	188,612	195,979	6,550	670	5,880
Funeral Directors	1,416	1,416	64	0	64
Managers, Superintendents, Building	2,424	3,062	202	58	144
Office Managers, N.E.C.	9,490	11,350	561	169	392
Officers, Pilots, Purfers, Ship	578	576	20	0	20
Officials of Lodges, Unions	2,056	1,963	73	-8	81
Railroad Conductor	423	490	19	6	13
Restaurant, Cafe & Bar Managers	15,231	15,717	260	44	216
Other Managers & Administrators, N.E.C.	156,994	161,405	5,351	401	4,950
Sales Workers	155,558	170,037	8,056	1,315	6,741
Advertising Agents, Sales Workers	1,735	2,114	105	34	71
Auctioneers	65	58	1	-1	2
Demonstrators	1,177	1,767	132	54	78
Hucksters & Peddlers	2,754	3,584	219	75	144
Insurance Agents, Brokers, etc.	14,045	14,555	502	46	456
Newspaper Carriers & Vendors	1,269	1,079	5	-17	22
Real Estate Agents, Brokers	10,964	11,320	559	32	527
Stock & Bond Sales Agents	3,035	3,014	107	-2	109
Sales & Sales Workers, N.E.C.	120,514	132,546	6,426	1,094	5,332

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Clerical Workers	471,445	537,530	35,852	6,004	29,848
Stenographers, Typists & Secretaries	138,365	168,358	14,249	2,727	11,522
Secretaries, Legal	4,427	5,824	547	127	420
Secretaries, Medical	6,229	8,025	721	163	558
Secretaries, Other	89,210	113,429	9,834	2,202	7,632
Stenographers	2,059	1,198	43	-78	121
Typists	36,440	39,882	3,104	313	2,791
Office Machine Operators	23,683	22,405	920	-117	1,037
Bookkeeping, Billing Operators	1,653	1,463	74	-17	91
Calculating Machine Operators	1,015	959	59	-5	64
Computer, Peripheral Equipment Operators	8,582	9,863	307	116	191
Duplicating Machine Operators	674	589	22	-8	30
Keypunch Operator	9,482	7,383	354	-191	545
Tabulating Machine Operators	73	29	-2	-4	2
Other Office Machine Operators	2,204	2,119	106	-8	114
Other Clerical Workers	309,397	346,767	20,683	3,394	17,289
Bank Tellers	10,625	12,046	824	129	695
Billing Clerks	5,243	6,690	512	132	380
Bookkeepers	49,983	48,691	3,002	-117	3,119
Cashiers	33,474	35,984	2,399	228	2,171
Clerical Assistants, Social Welfare	366	415	29	4	25
Clerical Supervisors, N.E.C.	5,866	6,826	348	87	261
Collectors, Bill & Account	1,342	1,340	55	0	55
Counter Clerks, Except Food	9,051	10,112	649	96	553
Dispatchers, Starters, Vehicle	2,274	2,751	122	43	79
Enumerators & Interviewers	996	869	39	-12	51
Estimators, Investigators, N.E.C.	11,016	12,391	660	125	535
Expeditors, Production Controllers	7,590	9,002	368	128	240
File Clerks	9,496	9,022	607	-45	652
Insurance Adjusters & Examiners	4,750	5,164	198	38	160
Library Attendants & Assistants	5,721	6,706	506	90	416
Mail Carriers, Post Office	8,384	7,576	64	-73	137
Mail Handlers, Except Post Office	5,208	5,921	314	65	249
Messengers & Office Helpers	2,292	2,008	96	-26	122
Meter Readers, Utilities	1,065	977	6	-8	14
Payroll, Time Keeping Clerks	6,489	7,073	463	53	410
Postal Clerks	9,976	9,022	181	-87	268
Proofreaders	1,206	1,428	106	20	86
Real Estate Appraisers	837	905	59	6	53
Receptionists	10,594	12,608	1,081	183	898
Shipping, Receiving Clerks	18,943	20,180	627	112	515
Statistical Clerks	8,912	8,599	488	-28	516
Stock Clerks, Storekeepers	14,485	16,385	666	173	493
Teachers' Aides, Except Monitors	4,159	7,071	488	265	223
Telegraph Messengers	37	16	-1	-2	1
Telegraph Operators	206	176	7	-3	10
Telephone Operators	15,813	12,882	704	-266	970
Ticket Station & Express Agents	2,742	2,802	113	5	108
Weighers	701	725	30	2	28
Miscellaneous Clerical Workers, N.E.C.	39,555	62,404	4,873	2,077	2,796

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Transportation, Public Utility Crafts	16,903	16,602	131	-27	158
Electric Power Line Installers & Repairers	2,855	3,169	65	29	36
Locomotive Engineers	425	477	55	5	10
Locomotive Engineers Helpers	76	36	-4	-4	0
Power Station Operators	505	426	5	-7	12
Telephone Installers & Repairers	11,325	11,151	76	-16	92
Telephone Line Installers & Splicers	1,717	1,343	-26	-34	8
Other Crafts, Kindred Workers	37,020	34,988	1,131	-185	1,316
Bakers	4,273	3,616	74	-60	134
Cabinetmakers	1,789	1,612	36	-16	52
Carpet Installers	1,302	1,485	28	17	11
Crane, Derrick, & Hoist Operators	2,893	2,903	64	1	63
Decorators & Window Dressers	2,197	2,144	95	-5	100
Dental Laboratory Technicians	1,049	951	30	-9	39
Furniture & Wood Finishers	810	711	19	-9	28
Furriers	67	63	3	0	3
Glaziers	1,057	1,319	46	24	22
Inspectors, Log & Lumber	45	29	1	-1	2
Inspectors, Other	3,275	3,196	98	-7	105
Jewelers & Watchmakers	1,254	1,196	60	-5	65
Millers, Grain, Flour, Feed	31	35	0	0	0
Motion Picture Projectionists	397	435	41	3	38
Opticians, Lens Grinders & Polishers	2,181	3,501	211	120	91
Piano & Organ Tuners & Repairers	292	324	23	3	20
Shipfitters	216	234	7	2	5
Shoe Repairers	1,110	563	7	-50	57
Sign Painters & Letterers	755	672	26	-8	34
Stationary Engineers	4,299	3,422	51	-80	131
Stone Cutters & Stone Carvers	223	213	8	-1	9
Tailors	2,318	1,805	70	-47	117
Upholsterers	1,603	1,606	69	0	69
Craft & Kindred Workers, N.E.C.	3,584	2,953	64	-57	121
Operatives	398,125	381,284	12,470	-1,535	14,005
Operatives, Except Transportation	320,273	302,144	10,766	-1,653	12,419
Semiskilled Metal Working	33,374	31,920	753	-133	886
Drill Press Operators	2,539	2,192	44	-32	76
Furnace Tenders, Smelters, & Pourers, Metal	873	874	30	0	30
Grinding Machine Operatives	4,836	4,508	96	-30	126
Heaters, Metal	107	84	0	-2	2
Lathe & Milling Machine Operatives	4,449	3,953	55	-45	100
Metal Platers	1,669	1,701	45	3	42
Other Precision Machine Operatives	3,001	2,829	57	-16	73
Punch & Stamping Press Operatives	3,111	2,811	79	-27	106
Solderers	3,024	1,906	25	-102	127
Welders & Flame Cutters	9,765	11,062	322	118	204
Semiskilled Textile	9,839	6,887	107	-269	376
Carding, Lapping, & Combing Operatives	334	127	-7	-19	12
Knitters, Loopers, & Toppers	845	628	12	-20	32
Spinners, Twisters, & Winders	2,116	1,622	62	-45	107
Weavers	670	380	0	-26	26
Other Textile Operatives	5,874	4,130	40	-159	199

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Craft & Kindred Workers	308,484	332,755	9,158	2,207	6,951
Construction Crafts Workers	128,688	144,477	4,363	1,434	2,929
Carpenters & Apprentices	29,089	34,306	1,241	474	767
Brick & Stonemasons & Apprentices	3,969	4,720	141	68	73
Bulldozer Operators	1,624	2,293	88	61	27
Cement & Concrete Finishers	1,229	1,519	38	26	12
Electricians & Apprentices	13,640	15,193	301	141	160
Excavating, Grading & Machine Operators	4,250	5,648	189	127	62
Floor Layers, Except Tile Setters	669	673	13	0	13
Painters & Apprentices	12,647	12,800	369	14	355
Paperhangers	1,057	1,182	55	11	44
Plasterers & Apprentices	649	600	10	-4	14
Plumbers, Pipefitters & Apprentices	10,598	12,049	268	132	136
Roofers & Slaters	2,316	3,068	110	68	42
Structural Metal Craft Workers	2,215	2,777	88	51	37
Tilesetters	1,213	1,225	21	1	20
Blue-Collar Worker Supervisors, N.E.C.	43,523	46,424	1,431	264	1,167
Metalworking Craft Workers, Except Mechanics	36,687	37,432	820	69	751
Blacksmiths	177	136	1	-4	5
Boilermakers	492	524	5	3	2
Heat Treaters, Annealers, & Temperers	818	649	7	-15	22
Forge & Hammer Operators	873	897	18	2	16
Job & Die Setters, Metal	2,627	3,062	107	40	67
Machinists & Apprentices	15,442	15,978	355	49	306
Millwrights	1,712	1,669	36	-4	40
Molders & Apprentices, Metal	1,675	1,552	19	-11	30
Pattern & Model Makers.	1,455	1,101	11	-32	43
Rollers & Finishers, Metal	587	628	20	4	16
Sheetmetal Workers & Apprentices	4,641	4,802	92	15	77
Tool & Diecasters & Apprentices	6,188	6,434	149	22	127
Mechanics, Repairers, & Installers	73,796	84,276	2,340	953	1,387
Air Cond., Heating, & Refrig. Mechanics & Repairers	6,928	8,591	272	151	121
Aircraft Mechanics	1,531	1,670	29	13	16
Auto Accessories Installers	145	143	1	0	1
Auto Body Repairers	5,057	5,263	77	19	58
Auto Mechanics & Apprentices	23,057	26,857	754	345	409
Data Processing Machine Repairers	1,692	2,522	91	75	16
Farm Implement Mechanics	864	1,260	62	36	26
Heavy Equipment Mechanics Including Diesel	18,234	19,120	476	81	395
Household Appliance Mechanics	3,706	3,992	97	26	71
Loom Fixers	338	241	8	-9	17
Office Machine Repairers	1,701	2,538	100	76	24
Radio & Television Repairers	3,900	5,136	199	112	87
Railroad & Car Shop Repairers	463	437	11	-2	13
Other Mechanics & Apprentices	6,180	6,506	163	30	133
Printing Trade Craft Workers	15,390	14,980	373	-37	410
Bookbinders	1,412	1,414	66	0	66
Composition & Typesetters	6,176	5,380	105	-72	177
Electrotypes & Stereotypes	106	70	0	-3	3
Engravers, Except Photoengravers	694	585	12	-10	22
Photoengravers & Lithographers	1,502	1,730	59	21	38
Pressmen, Plate Printers & Apprentices	5,500	5,801	131	27	104

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Semiskilled Packing, Inspecting	57,159	58,248	2,771	97	2,674
Checkers, Examiners, & Inspectors, Mfg.	26,797	29,310	1,426	228	1,198
Graders & Sorters, Manufacturing	1,222	919	33	-28	61
Meat Wrappers, Retail Trade	2,751	3,215	212	42	170
Packers & Wrappers, Except Meat & Produce	26,132	24,509	1,084	-148	1,232
Produce Graders & Packers, Except Factory & Farm	257	295	16	3	13
Other Operatives, Except Transportation	219,901	205,089	7,135	-1,348	8,483
Asbestos & Insulation Workers	703	1,099	50	36	14
Assemblers	36,330	38,871	1,892	231	1,661
Blasters	63	61	1	0	1
Bottling & Canning Operatives	896	799	26	-9	35
Surveyor Helpers	166	148	-1	-2	1
Clothing Ironers & Pressers	4,836	2,865	8	-179	187
Cutting Operatives, N.E.C.	8,431	7,764	258	-61	319
Dressmakers, Except Factory	2,411	2,240	161	-16	177
Drillers, Earth	877	885	25	1	24
Dry Wall Installers, & Lathers	1,285	1,427	26	13	13
Dyers	1,739	1,864	56	11	45
Filers, Polishers, Sanders, & Buffers	4,647	3,970	75	-62	137
Garage Workers & Gas Station Attendants	9,616	8,634	31	-89	120
Laundry & Dry Cleaning Operatives, N.E.C.	5,029	4,725	240	-28	268
Meat Cutters & Butchers, Except Mfg.	6,729	6,369	167	-33	200
Meat Cutters, Butchers	792	783	22	-1	23
Milliners	92	72	5	-2	7
Mine Operatives, N.E.C.	87	159	11	7	4
Mixing Operatives	2,379	2,091	25	-26	51
Oilers & Greasers, Except Auto	898	724	5	-16	21
Painters, Manufactured Articles	3,916	3,819	100	-9	109
Photographic Process Workers	3,442	3,735	173	27	146
Riveters & Fasteners	980	926	39	-5	44
Sailors & Deckhands	432	451	8	2	6
Sawyers	1,370	1,249	48	-11	59
Sewers & Stitchers	29,889	22,808	982	-644	1,626
Shoemaking Machine Operatives	5,120	3,097	28	-184	212
Furnace Tenders & Stokers, Except Metal	2,830	2,347	63	-44	107
Winding Operatives, N.E.C.	3,946	4,224	189	25	164
Miscellaneous Machine Operatives	48,340	45,145	1,304	-290	1,594
Operatives, N.E.C.	31,630	31,738	1,118	10	1,108
Transportation Equipment Operatives	77,852	79,140	1,704	118	1,586
Boat Operators	178	185	4	1	3
Bus Drivers	8,932	9,168	323	21	302
Conductors & Operators, Urban Rail Transit	747	810	21	6	15
Delivery & Route Workers	20,466	20,752	382	26	356
Fork Lift & Tow Motor Operators	5,426	5,809	116	35	81
Rail Vehicle Operators, N.E.C.	4	3	0	0	0
Parking Attendants	1,049	872	30	-16	46
Railroad Brake Operators	512	545	12	3	9
Railroad Switch Operators	270	387	22	11	11
Taxicab Drivers & Chauffeurs	7,383	7,400	237	2	235
Truck Drivers	32,885	33,209	557	29	528
Service Workers	330,591	368,388	22,165	3,437	18,728
Cleaning Service Workers	59,711	69,184	4,293	861	3,432
Lodging Quarters Cleaners, Except Private Household	5,529	6,827	572	118	454
Building Interior Cleaners, N.E.C.	20,122	25,657	1,843	503	1,340
Janitors & Sextons	34,060	36,700	1,878	240	1,638

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Food Service Workers	116,400	127,684	6,916	1,026	5,890
Bartenders	7,373	7,859	209	44	165
Waiter's Assistants	3,984	4,224	80	22	58
Cooks, Except Private	22,919	26,915	1,348	363	985
Dishwashers	6,989	7,678	318	63	255
Food Counter & Fountain Workers	19,262	19,942	1,105	62	1,043
Waiters	39,882	43,970	2,862	372	2,490
Food Workers, N.E.C., Except Private	15,991	17,096	994	100	894
Health Service Workers	59,554	80,733	6,703	1,926	4,777
Dental Assistants	3,973	5,329	518	123	395
Health Aides, Except Nursing	5,853	7,259	588	128	460
Health Trainees	877	180	-7	-63	56
Lay Midwives	0	0	0	0	0
Nursing Aides, Orderlies, & Attendants	27,539	35,988	2,751	768	1,983
Practical Nurses	21,312	31,977	2,853	970	1,883
Personal Service Workers	36,502	40,278	2,797	344	2,453
Flight Attendants	1,405	1,599	180	18	162
Attendants, Recreation & Amusement	1,656	1,872	108	20	88
Attendants, Personal Service, N.E.C.	2,094	2,165	171	6	165
Baggage Porters & Bellhops	458	378	0	-7	7
Barbers	3,663	2,276	0	-126	126
Boarding & Lodging Housekeepers	659	660	60	0	60
Boothblacks	15	1	-1	-1	0
Child Care Workers, Except Private	5,238	8,661	812	311	501
Elevator Operators	1,066	640	24	-39	63
Hairdressers, Cosmetologists	13,011	13,697	945	62	883
Housekeepers, Except Private	3,752	3,780	227	3	224
School Monitors	1,202	1,725	101	48	53
Ushers, Recreation & Amusement	528	504	13	-2	15
Welfare Service Aides	1,755	2,320	157	51	106
Protective & Service Workers	44,783	43,308	1,117	-135	1,252
Crossing Guards & Bridgetenders	1,979	1,764	110	-20	130
Fire Fighters	12,994	13,359	218	33	185
Guards	13,144	10,663	480	-226	706
Marshals & Constables	86	100	5	1	4
Police & Detectives	15,783	16,641	256	78	178
Sheriffs & Bailiffs	797	781	48	-1	49
Private Household Workers	13,641	7,201	339	-585	924
Child Care Workers	5,187	2,537	98	-241	339
Cooks, Private	543	297	19	-22	41
Housekeepers, Private	1,795	987	52	-73	125
Launderers, Private Household	68	22	1	-4	5
Cleaners & Servants, Private Household	6,048	3,358	169	-245	414
laborers, Except Farm	100,504	105,462	2,757	447	2,310
Animal Caretakers, Except Farm	2,323	3,583	234	115	119
Carpenters, Helpers	2,430	2,460	33	3	30
Construction Laborers, Exc. Carpenter's Help.	18,802	19,986	393	108	285
Fishers, Hunters, & Trappers	1,836	1,434	3	-37	40
Freight, Material Handlers	15,304	15,396	302	8	294

TABLE 3 (Continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974 - 1985		
			Total Demand	Due to Growth	Due to Separations
Garbage Collectors	1,858	2,322	81	42	39
Gardeners & Groundskeepers, Except Farm	12,774	14,482	666	155	511
Longshore Workers & Stevedores	948	991	29	4	25
Timbercutting & Logging Workers	206	143	-3	-6	3
Stock Handlers	24,953	26,778	622	166	456
Teamsters	25	19	0	-1	1
Vehicle Washers & Equipment Cleaners	4,895	4,740	100	-14	114
Warehouse Laborers, N.E.C.	3,357	2,987	19	-37	56
Other Laborers	10,793	10,141	278	-59	337
Farmers & Farm Workers	10,746	5,874	-93	-442	349
Farmers & Farm Managers	4,437	2,278	-26	-196	170
Farmers (Owners & Tenants)	4,206	2,039	-35	-197	162
Farm Managers	231	239	9	1	8
Farm Laborers, Farm Supervisors	6,309	3,596	-67	-246	179
Farm Labor Supervisors	315	248	6	-6	12
Farm Laborers, Wage Workers	4,241	2,150	-91	-190	99
Farm Laborers, Unpaid Family	1,731	1,176	16	-50	66
Farm Laborers, Self-Employed	22	22	2	0	2

te: May not add to totals due to rounding.

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